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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,267	08/08/2001	Noriyuki Ishihara	1422-0476P	3082

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EXAMINER

PRATS, FRANCISCO CHANDLER

ART UNIT	PAPER NUMBER
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1651

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,267

Applicant(s)

ISHIHARA ET AL.

Examiner

Francisco C Prats

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-12 and 24-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6-12 and 24-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The amendment filed December 27, 2002, has been received and entered. The text of those sections of Title 35, U.S. Code, not included in this action can be found in a prior office action.

Claims 2, 5 and 13-23 have been cancelled.

Claims 41-55 have been added.

Claims 1, 3, 4, 6-12 and 24-55 are pending and are examined on the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

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U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4, 6-12 and 24-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al (EP 0 557 627 A1) and Chiu et al (U.S. Pat. 5,811,148) in view of Hoshida et al (JP 8-173055), and in further view of Yamane et al (JP 8-266230) and Kobayashi et al (JP 9-322-716).

Aoyama discloses the preparation of reduced viscosity guar-containing products, wherein mannanase from *Aspergillus niger* is contacted with the guar. Disclosed hydrolysate products include products wherein 81 to 96% of the molecular species are 30 to 200 units in length (molecular weight 5.4×10^3 to 3.6×10^4), well within the ranges recited in the cited claims. See Table 2 on page 6. Note further the viscosity of the products disclosed in Table 2 on page 6, meeting the claimed viscosity limitation.

Chiu discloses and claims hydrolysates, including enzymatic hydrolysates, of locust bean and guar gum having an average molecular weight of 500 to 50,000, a maximum viscosity of 50 cps in a 30% solution, and an average DP of 3 to 75. See, e.g. claim 1, at column 18, lines 1-11; see also column 1, line 64 through column 2, line 8; see also Examples 3-6, at columns 11-13.

Thus, each of Aoyama and Chiu disclose the preparation of enzyme-hydrolyzed polygalactomannan products having the claimed molecular weight distribution, and viscosity, as recited in claims 1, 4, 6 and 7. Neither Aoyama nor Chiu discloses administering those products to chickens to improve poultry productivity as recited in claims 24-55.

However, Hoshida discloses that administering enzyme-hydrolyzed guar gum to chickens improves poultry productivity, including reducing fatty liver, reducing non-standardized egg-ratio and preventing Salmonella pollution. Recognizing the desirability of administering enzyme-hydrolyzed polygalactomannans such as guar and locust bean gum to chickens, the artisan of ordinary skill would have been motivated by Hoshida to have administered the guar and locust bean gum preparations of Aoyama and Chiu to chickens. Because the enzyme-hydrolyzed polysaccharides of Aoyama and Chiu have very similar, if not identical, structures to the beneficial products of Hoshida, the artisan of ordinary skill clearly would have reasonably expected the products of Aoyama/Chiu to have functioned at least equivalently to Hoshida's polysaccharides in increasing poultry productivity.

None of Aoyama, Chiu, and Hoshida discloses combining enzyme-hydrolyzed polysaccharides with tea extracts which

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contain various compounds, including (-)-epigallocatechin gallate, and administering the combination to chickens, as recited in claims 1, 4, 8-12 and 24-55. However, each of Yamane and Kobayashi discloses beneficial results in poultry health and productivity when tea extracts, which include (-)-epigallocatechin gallate, are administered to chickens. Thus, the artisan of ordinary skill would have been motivated to have included the beneficial tea extracts of Yamane/Kobayashi in chicken feed in addition to the enzyme-hydrolyzed polygalactomannans disclosed by Hoshida as also being beneficial for poultry productivity. A holding of obviousness is therefore required.

Claims 1, 3, 4, 6-12 and 24-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al (EP 0 557 627 A1) and Chiu et al (U.S. Pat. 5,811,148) in view of Hoshida et al (JP 8-173055), Yamane et al (JP 8-266230) and Kobayashi et al (JP 9-322-716), as discussed above, and in further view of Tokuhiro et al (JP 5-192091).

As discussed above, Aoyama, Chiu, Hoshida, Yamane and Kobayashi, when taken together, provide motivation for combining enzyme-hydrolyzed polygalactomannans and tea extract with chicken feed to improve poultry productivity. None of Aoyama,

Chiu, Hoshida, Yamane and Kobayashi, disclosed the use of defatted rice bran as a useful component in chicken feed as recited in claim 3. However, because Tokuhiko clearly discloses the use of defatted rice bran as a useful component of chicken feed, the artisan of ordinary skill at the time of applicant's invention clearly would have been motivated to have used the claimed defatted rice bran in chicken feed. A holding of obviousness is therefore required.

In sum, the claims recite a combination of ingredients which are all disclosed in the prior art as being beneficial when included in chicken feed. Note specifically that it is well known that it is *prima facie* obvious to combine two or more ingredients each of which is taught by the prior art to be useful for the same purpose in order to form a third composition which is useful for the same purpose. The idea for combining them flows logically from their having been used individually in the prior art. *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Susi*, 58 CCPA 1074, 1079-80; 440 F.2d 442, 445; 169 USPQ 423, 426 (1971); *In re Crockett*, 47 CCPA 1018, 1020-21; 279 F.2d 274, 276-277; 126 USPQ 186, 188 (1960).

All of applicant's argument has been fully considered but is not persuasive of error. Applicant urges that the newly

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claimed combination of ingredients distinguishes over the prior art cited in the obviousness rejections because the limitation of claim 5 has now been inserted into claim 1. However, it is respectfully pointed out that, at the time of the first office action in this case, the limitations in claim 5 were not combined with the limitations present in claim 1, **as claim 1 now appears**. Applicant has now amended claim 1 to contain the limitations of both originally filed claim 2, and originally filed claim 5. This combination of limitations was not present in the claims at the time the office action of October 10, 2002, and therefore was not examined in that office action.

Rather, claim 5 was fully examined, and was considered to be anticipated by both Aoyama and Chiu. See office action of October 10, 2002, at pages 5 and 6. Because claim 5 was anticipated by the prior art, claim 5 was therefore not included in any obviousness rejections in the office action of October 10, 2002. Because each of Aoyama and Chiu disclose the viscosity limitation of the polysaccharide recited in applicant's claims (see above; see also page 6 of office action of October 10, 2002), claim 1 as presently amended, and its dependents, simply do not differ from the prior art with respect to this limitation. Contrary to applicant's arguments, the obviousness rejections of record are not distinguishable over

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the prior art because of the inclusion of claim 5's limitations into claim 1. The obviousness rejections of record must therefore be maintained.

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francisco C Prats whose telephone number is 703-308-3665. The examiner can normally be reached on Monday through Friday, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Wityshyn can be reached on 703-308-4743. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.



Francisco C Prats
Primary Examiner
Art Unit 1651

FCP
March 25, 2003